

National Climate Summary – August 2007

- **Rainfall: Below normal in the north and east of the South Island, near or above normal in regions exposed to the west**
- **Temperature: Above average in the North Island, near average elsewhere**
- **Sunshine: Well above average in Wellington, Nelson, and inland South Canterbury**
- **Wind: More southwesterlies than normal; northwest gales during the second week**

August 2007 was a month which was windy at times with frequent disturbed southwesterlies, especially to the east, resulting in low rainfall in sheltered northern and eastern South Island regions, and normal or above normal rainfall in several other regions.

Rainfall was less than 33 percent (a third) of normal in southern parts of Marlborough, on Banks Peninsula, and inland parts of Otago, with soil moisture levels now below normal for the time of year in some of these regions. Temperatures were above normal over much of the North Island and near average over much of the South Island. The national average temperature of 9.1 °C was 0.4°C above normal. The month was particularly sunny in Wellington, Nelson, and inland areas of south Canterbury. August's climate patterns were produced by more frequent depressions ('lows') south of the Chatham Islands, more anticyclones ('highs') in the Tasman Sea, resulting in frequent southwesterly winds over New Zealand. Three depressions tracked across New Zealand during the month (on the 5th, 17th, and 27th).

Further Highlights:

- The highest temperature during August 2007 was 22.2 °C recorded at Dunedin Airport on the 31st, their highest on record for August.
- The lowest air temperature during the month was -8.4 °C recorded at Hanmer Forest on the 20th. A grass minimum of -16.4 °C was recorded at Mt Cook Village on the 15th, their lowest on record for August.
- High rainfall at Milford Sound totalled 431 mm over the 96 hours (4-days) to 9am on the 12th, and 107 mm at Kerikeri Airport over the 24 hours to 9am on the 17th.
- Gale force northwesterlies buffeted many central and southern New Zealand regions over the 10th -12th, with several power lines damaged in parts of Otago.
- Of the five main centres, Auckland was the warmest, Dunedin the driest, Christchurch the coldest, Hamilton the wettest, and Wellington the sunniest.

Rainfall: Rainfall was less than 50 percent (half) of normal in many eastern regions from southern Wairarapa to Otago, as well as Nelson. However, rainfall totals were near or above normal in many regions exposed to the west, being at least 125 percent (one and a quarter) of normal in parts of Northland, Waikato, Manawatu, Wanganui, and the west of Southland.

Temperature: Mean temperatures were about 1.0 °C above average over much of the North Island, central Marlborough and Nelson, and some inland areas of the South Island, and near average elsewhere. The national average temperature was 9.1 °C (0.4 °C above normal).

Sunshine: August sunshine hours and/or solar radiation were at least 120 percent of normal in Nelson, Wellington, and inland South Canterbury, and more than 110 percent of normal in Marlborough, north Canterbury, and East Otago. Sunshine hours were below normal in Manawatu and near normal elsewhere.

For further information, please contact:

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RAINFALL: BELOW NORMAL IN THE NORTH AND EAST OF THE SOUTH ISLAND, NEAR OR ABOVE NORMAL IN REGIONS EXPOSED TO THE WEST

Rainfall was less than 50 percent (half) of normal in many eastern regions from southern Wairarapa to Otago, as well as Nelson. Totals were less than 33 percent (a third) of normal in parts of Marlborough, Banks Peninsula, and inland areas of Otago. However, totals were near or above normal in many regions exposed to the west. Rainfall was at least 125 percent (one and a quarter) of normal in parts of Northland, Waikato, Manawatu, Wanganui, and the west of Southland.

Low August rainfall was recorded at:

Location	August Rainfall (mm)	Percentage of normal	Year records began	Comments
Hanmer Forest	19	16	1905	Well below normal
Kaikoura	18	25	1949	Well below normal
Le Bons Bay	11	10	1989	Equal lowest
Ranfurlly	7	24	1943	Well below normal
Middlemarch	8	27	1916	Well below normal
Lauder EWS	7	23	1987	3 rd lowest

TEMPERATURE: ABOVE AVERAGE OVER MUCH OF THE NORTH ISLAND, NEAR AVERAGE ELSEWHERE

Mean temperatures were about 1.0 °C above average over much of the North Island, central Marlborough and Nelson, and some inland areas of the South Island, and near average elsewhere. The national average temperature was 9.1 °C (0.4°C above normal).

High August mean air temperatures were recorded at:

Location	Mean air temperature (°C)	Departure from normal	Year records began	Comments
Kaikohe	12.4	+1.4	1973	Highest
Tauranga Airport	11.7	+1.2	1913	3 rd highest
Napier Airport	10.7	+1.2	1974	Equal highest
Palmerston North Airport	10.2	+1.2	1962	2 nd equal highest
Stratford	9.2	+1.3	1960	Equal 2 nd highest
Lake Tekapo	4.8	+1.4	1927	Well above average

SUNSHINE: WELL AVERAGE IN WELLINGTON, NELSON, AND INLAND SOUTH CANTERBURY

August sunshine hours and/or solar radiation were at least 120 percent of normal in Nelson, Wellington, and inland South Canterbury, and more than 110 percent of normal in Marlborough, north Canterbury, and East Otago. Sunshine hours were below normal in Manawatu and near normal elsewhere.

High August sunshine was recorded at:

Location	August Sunshine (hours)	Percentage of normal	Year records began	Comments
Wellington, Kelburn	180	133	1928	Well above normal
Nelson Airport	214	125	1949	3 rd highest
Tekapo	199	133	1928	2 nd highest

AUGUST'S CLIMATE IN THE FIVE MAIN CENTRES

Auckland was the warmest, Dunedin the driest, Christchurch the coldest, Hamilton the wettest, and Wellington the sunniest. Rainfall was near normal in Auckland and Hamilton, and below normal in the three other main centres. Temperatures were above normal in Auckland and Hamilton, near normal elsewhere. Sunshine hours were above normal in all five main centres, especially Wellington.

August 2007 main centre climate statistics:

Location	Aug. mean temp. (°C)	Dep. from normal (°C)		Aug. rainfall (mm)	% of normal		Aug. Sunshine (hours)	% of normal	
Auckland	12.4	+0.9	Above normal	107 ^a	89	Near normal	159	112	Above normal
Hamilton	10.4	+0.6	Above normal	113	99	Near normal	156	113	Above normal
Wellington	9.2	0.0	Near normal	85	69	Below normal	180	133	Well above normal
Christchurch ^b	6.9	-0.1	Near normal	45	69	Below normal	173	117	Above normal
Dunedin	8.0	+0.4	Near normal	25	38	Below normal	135	119	Above normal

^a Owhiraka ^b Christchurch Airport

HIGHLIGHTS AND EXTREME EVENTS

- **Temperature**

The highest temperature during August 2007 was 22.2 °C recorded at Dunedin Airport on the 31st, their highest on record for August.

Record high August maximum air temperatures recorded on 31 August were:

Location	Extreme maximum air temperature (°C)	Year records began
Oamaru Airport	22.0	1967
Dunedin Airport	22.2	1963
Dunedin, Musselburgh	21.5	1947

The lowest air temperature during the month was -8.4 °C recorded at Hanmer Forest on the 20th. A grass minimum of -16.4 °C was recorded at Mt Cook Village on the 15th. This is the lowest on record there for August (measurements commenced in 1930).

- **High rainfall**

Rainfall at Milford Sound totalled 431mm over the 96 hours (4-days) to 9am on the 12th, with 192 mm in the 24 hours to 9am on the 11th. Later in the month Kerikeri Airport recorded 107 in the 24 hours to 9am on the 17th.

- **Severe weather – high winds, northern North Island, 9-12 August**

Gale force northwesterlies buffeted many central and southern New Zealand regions as a very deep depression tracked south of New Zealand, producing a large pressure gradient over the country. Several power lines were damaged by the high winds in parts of Otago. Kelburn's 141 km/h gust speed was the highest there since July 2000.

Very high wind gusts, over 130 km/h, were recorded at:

Date	Region	Location	Wind gust (km/h)
10 Aug.	Wairarapa	Castlepoint	150
	Wellington	Kelburn	141
	Southland	Puysegur Point	133
	Otago	Rock & Pillar	154
	Stewart Island	South West Cape	146
11 Aug.	Wairarapa	Castlepoint	146
	Wellington	Kelburn	133
	Southland	Puysegur Point	137
	Otago	Rock & Pillar	158
	Stewart Island	South West Cape	146
12 Aug.	Wairarapa	Castlepoint	135
	Wellington	Paraparaumu Airport	139

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